

Notice of Allowability

Application No.

10/014,743

Examiner

Jezia Riley

Applicant(s)

LEE ET AL.

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Response received on 9/25/03.
2. ☒ The allowed claim(s) is/are 80-86.
3. ☒ The drawings filed on 29 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

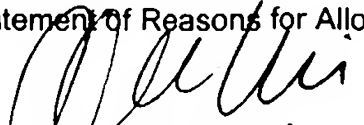
7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____. | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |


JEZIA RILEY
PRIMARY EXAMINER

ALLOWED CLAIMS | TJ

80. (Previously added): An energy transfer dye comprising:
a xanthene donor dye capable of absorbing light at a first wavelength and emitting excitation energy in response thereto;
a 4,7-dichlororhodamine acceptor dye capable of absorbing the excitation energy emitted by the donor dye and fluorescing at a second wavelength in response thereto; and
a non-nucleosidic linker linking the 5- or 6-ring position of the donor dye to the 5- or 6-ring position of the acceptor dye.

81. (Previously added): The energy transfer dye of Claim 80 in which the donor dye is a fluorescein dye.

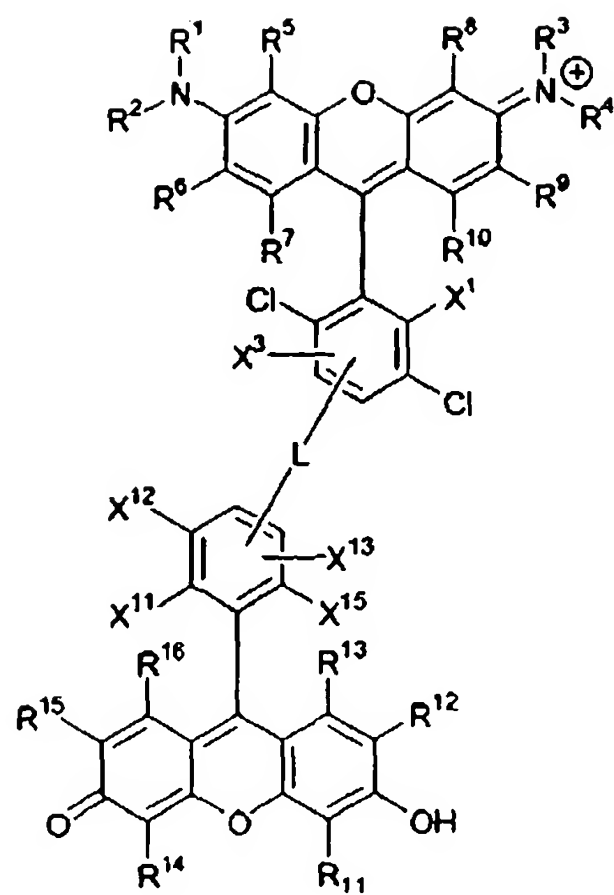
82. (Previously added): The energy transfer dye of Claim 80 in which the linker has a backbone that is less than 9 atoms in length.

83. (Previously added): The energy transfer dye of Claim 80 in which the linker comprises a functional group selected from an alkene, a diene, an alkyne, a five membered ring having at least one unsaturated bond, a six membered ring having at least one unsaturated bond and a fused ring structure.

84. (Previously added): The energy transfer dye of Claim 80 which further comprises a linking group suitable for attaching the energy transfer dye to another substance.

85. (Previously added): The energy transfer dye of Claim 84 in which the linking group is attached to the 4'-position of the 4,7-dichlororhodamine acceptor dye.

86. (Previously added): The energy transfer dye of Claim 80 which comprises the structure:



wherein:

R^1 , R^2 , R^3 and R^4 are each, independently of one another, selected from hydrogen and alkyl, or alternatively R^1 and R^5 , R^2 and R^6 , R^3 and R^8 and/or R^4 and R^9 may be taken together with the atoms to which they are bonded to form a 5, 6 or 7-membered ring;

R^5 , R^6 , R^7 , R^9 and R^{10} are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl and substituted phenyl, or alternatively, R^6 and R^7 and/or R^9 and R^{10} may be taken together with the atoms to which they are bonded to form a benzo group;

R^8 is selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl, substituted phenyl and linking group;

X^1 and X^3 are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile and alkoxy;

L is the linker linking the donor and acceptor dyes;

R^{11} , R^{12} , R^{13} , R^{15} and R^{16} are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate,

sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl and substituted phenyl, or alternatively, R^{12} and R^{13} and/or R^{15} and R^{16} may be taken together with the atoms to which they are bonded to form a benzo group;

R^{14} is selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl, substituted phenyl and linking group; and

X^{11} , X^{12} , X^{13} and X^{15} are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile and alkoxy.